

WHAT IS CLAIMED IS:

1. A method for working a tube comprising the steps of:
inserting a mandrel into an blank tube in the form of
a welded tube:

applying a parallel swaging operation by means of a
die so as to cause said blank tube to contact tightly with
said mandrel;

subsequently withdrawing said die from the blank tube,
while keeping said mandrel to remain in the blank tube; and

moving a push-die to the blank tube from a radially
outward position to flatten a weld portion on the blank
tube in cooperation with said mandrel.

2. A method for working a tube in accordance with Claim
1, wherein the parallel swaging operation is performed by
means of the die after the insertion of the mandrel.

3. A method for working a tube in accordance with Claim
2, wherein a tapered surface is formed at the inner edge of
the tip end of the blank tube through a cooperative action
between the mandrel and the die.

4. A method for working a tube in accordance with Claim
2, wherein a reduced thickness portion is formed at the tip
end of the blank tube through a cooperative action between
the mandrel and the die, so that said reduced thickness
portion can be used as a bent piece extending in a radially
inward direction.

5. A method of working a tube in accordance with Claim 3,
wherein a reduced thickness portion is formed at the tip
end of the blank tube through a cooperative action between

the mandrel and the die so that said reduced thickness portion can be used as a bent piece extending in a radially inward direction.

6. A method for working a tube in accordance with Claim 1, wherein said die is a cylindrical die and a relief is formed in the inner surface of the cylindrical die to extend circumferentially, said relief portion having a slightly enlarged inner diameter and used as a reservoir for lubricating oil.

7. A method for working a tube in accordance with Claim 2, wherein said die is a cylindrical die and a relief is formed in the inner surface of the cylindrical die to extend circumferentially, said relief portion having a slightly enlarged inner diameter and used as a reservoir for lubricating oil.

8. A method for working a tube in accordance with Claim 3, wherein said die is a cylindrical die and a relief is formed in the inner surface of the cylindrical die to extend circumferentially, said relief portion having a slightly enlarged inner diameter and used as a reservoir for lubricating oil.

9. A method for working a tube in accordance with Claim 4, wherein said die is a cylindrical die and a relief is formed in the inner surface of the cylindrical die to extend circumferentially, said relief portion having a slightly enlarged inner diameter and used as a reservoir for lubricating oil.

10. A method for working a tube in accordance with Claim

5, wherein said die is a cylindrical die and a relief is formed in the inner surface of the cylindrical die to extend circumferentially, said relief portion having a slightly enlarged inner diameter and used as a reservoir for lubricating oil.

11. An apparatus for working a tube, comprising a parallel swaging machine and a push-die, said parallel swaging machine including a clamp for supporting a blank tube, a mandrel insertable into said blank tube supported on the clamp and a die which translates along the blank tube supported on said clamp and said push-die being mounted on said machine so that it moves toward said blank tube from a radially outward position and away from the blank tube.

12. An apparatus for working a tube in accordance with Claim 11, wherein a forming surface is provided on said mandrel for forming the tip end of the blank tube to have a thickness less than a predetermined tube wall.